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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/726,891

12/04/2003

Satoru Kamano

YMOR:300

4184

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7590

04/06/2005

PARKHURST & WENDEL, L.L.P.  
1421 PRINCE STREET  
SUITE 210  
ALEXANDRIA, VA 22314-2805

EXAMINER

NGUYEN, TUNG X

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/726,891

Applicant(s)

KAMANO ET AL.

Examiner

Tung X. Nguyen

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2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on the amendment filed 1/25/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-8 and 10 is/are rejected.
- 7) ☒ Claim(s) 3,5 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 1 is objected to because of the following informalities:

As to claim 1, "comprises" should read --- comprise---, recited in claim 1, line 6.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 4, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dang (u.s.p 5,931,962), in view of Swoboda et al. (u.s.p 6,032,268).

As to claim 1, Dang disclose in Figs. 2-3, an ancillary equipment for testing a semiconductor integrated circuit comprising: a device measuring unit (200 of figure 2) comprising a measuring section (203 of figure 2), and an analyzing section (202, 210, 211 of figure 2); wherein the measuring section (203) for exchanging a signal (transmitted/received between DUT and 200) with a measured device under test (DUT of figure 2) , the analyzing section (202, 210, and 211 of figure 2) for analyzing the information from the measuring section by using a programmable device (210, 211); and a control/communication card (201 of figure 2) locating in separating different from the device measuring unit circuit board (200 of figure 2); wherein the

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control/communication card (201 of figure 2) being connected to the device measuring unit (200 of figure 2) to control the device measuring unit and carrying out communication with a general-purpose computer (301 of figure 3). Dang is silent about the control/communication card to be considered as tester controller comprising a board. However, Swoboda et al. disclose the control/communication card comprising a board (1141 of figure 23) separating the test head (1651 of figure 23). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system of Dang, and provide the control/communication card separating with the test head, as taught by Swoboda et al., for easy to replace or exchange the improved or new control/communication card.

As to claim 2, Dang disclose in Fig. 2, the control/communication card (201 of figure 2) includes a data input section for acquiring data from the device measuring unit (col. 4, lines 25-30); a control signal output section for transmitting a control signal to the device measuring unit (col. 4, lines 27-32), and an interface for exchanging a signal with the general-purpose computer (301 of figure 3, and col. 4, lines 35-40).

As to claim 4, Dang discloses in Figs. 2-3, the device measuring unit (203, 230 of figure 2) or the control/communication card (201 of figure 2) comprises a terminal (230) for receiving an input/output signal and an internal signal of the device measuring unit (203).

As to claim 7, Dang disclose in Figs. 2-3, the control/communication card (201 of figure 2) comprises a device measure diagnosing unit (210, 211, 202 of figure 2) for transmitting a diagnostic signal for diagnosing the device under test (DUT) to the device

measuring unit (203, 230 of figure 2) and transferring diagnostic result data from the device measuring unit to the general-purpose computer (301 of figure 3).

4. Claims 6, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dang (u.s.p 5,931,962), in view of Swoboda et al. (u.s.p 6,032,268), and further in view of Maeda et al. (u.s.p 4,467,275).

As to claim 6, Dang, in view of Swoboda et al. disclose all of the limitations except for the device measuring unit comprising a plurality of input terminals for receiving signals from a plurality of circuits located on the device, and an input signal selector for selecting and switching signals from the plurality of input terminals. However, Maeda et al. disclose in Figs. 2, the device measuring unit (2A-D of figure 2) comprising a plurality of input terminals (20 of figure 2) for receiving signals (via 2A-D of figure 2) from a plurality of circuits located on the device (20), and an input signal selector (22 of figure 2) for selecting and switching signals from the plurality of input terminals for measuring each desired characteristics of device under test. Therefore, It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system of Dang, in view of Swoboda et al., and provide the device measuring unit having a plurality of input terminals, as taught by Maeda et al, for measuring each desired characteristics of device under test.

As to claim 8, Mori et al., in view of Swoboda et al. disclose all of the limitations except for a plurality of device measuring units for performing a test using one or more of the device measuring units. However, Maeda et al. disclose in Fig. 2, a plurality of device measuring units (2A-D of figure 2) for performing a test using one or more of the

device measuring units (via 22). Therefore, It would have been obvious to a person having ordinary skill in the art at the time the invention was made to system of Dang, in view of Swoboda et al., and provide the plurality of device measuring using (2A-D of figure 2), as taught by Maeda et al., for saving time and quickly performing to test plurality of device under test.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dang (u.s.p 5,931,962), in view of Swoboda et al. (u.s.p 6,032,268), and further in view of Kurihara (u.s.p 6,255,843).

As to claim 10, Dang, in view of Swoboda et al., disclose all of the limitations except for the device measuring unit comprises a socket for mounting thereon with the device under test is provided in the device measuring unit. However, Kurihara disclose in Fig. 4, the device measuring unit (200 of figure 4) comprising a socket for mount thereon with device under test (DUT 300) is provided in the device measuring unit for easy to remove and exchange the device under test. Therefore, It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system of Dang, in view of Swododa et al., and provide the socket, as taught by Kurihara, for easy to remove and exchange the device under test.

***Allowable Subject Matter***

6. Claims 3, 5, 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 3, 9, the prior art does not teach or suggest the device measuring unit includes a program writing port for permitting a program to be written on the programmable device of the device measuring unit from the general-purpose computer; in combination with the other claimed features.

As to claim 5, the prior art does not teach or suggest the device measuring unit comprises a connector for making connection via a cable with a substrate having a socket for mounting a device under test; and a connector for insertion directly into the substrate; in combination with the other claimed features.

### ***Response to Arguments***

7. Applicant's arguments filed on 1/25/05 with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X. Nguyen whose telephone number is (571) 272-1967. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (571) 272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TN  
3/29/05

  
VINH NGUYEN  
PRIMARY EXAMINER  
A.U. 2829  
04/01/05